

SERVICE AND MAINTENANCE

External Maintenance

Regular external maintenance of the ZT-2800™ should include the following:

1. Check the vehicle operator's manual for the recommended load ratings. Insure that the current application does not exceed load rating.
2. Check oil level in accordance with "Fluid Change Procedure," step 12. Refer to page 11.
3. Inspect the vehicle drive belt, idler pulley(s), and idler spring(s). Insure that no belt slippage can occur. Slippage can cause low input speed to the transaxle.
4. Inspect the vehicle control linkage to the directional control arm on the transaxle. Also insure that the control arm is securely fastened to the trunnion arm of the transaxle.
5. Inspect the bypass mechanism on the transaxle and the vehicle linkage to insure that both actuate and release fully.

Service and Maintenance Procedures

Some of the service procedures presented on the following pages can be performed while the ZT-2800 is mounted on the vehicle. Any repair procedures as mentioned in the repair section of this manual must be performed after the unit has been removed from the vehicle.

Fluids

The fluids used in Hydro-Gear products have been carefully selected, and only equivalent, or better products should be substituted.

Typically, an engine oil with a minimum rating of 55 SUS (9.0 cSt) at 212° F (100° C) and an API classification of SL is recommended. A 20W50 engine oil has been selected for use by the factory and is recommended for normal operating procedures.

Fluid Volume and Level

Fluid volume information is provided in the table below.

Certain situations may require additional fluid to be added or even replaced. Refer to page 10 and figure 5 for the proper fill port location.

Recheck the fluid level once the unit has been operated for approximately 1 minute.

Purging will be required if oil has been changed. Refer to the purging procedures on page 12.

Fluid Description
20W50 engine oil
Volume – per Transaxle
71.2 fl.oz. (2105 ml) to 69.5 fl.oz. (2055 ml)

FILTER AND FILTER GUARD

Refer to Figure 4

Disassembly

1. Remove the hex head screws (105), and filter guard (106).
2. Remove the filter (23) and discard.

NOTE: Always replace the filter when performing any internal maintenance to the transaxle.

3. Remove the metal oil drain plug (5) or the fitting (111) from inlet port and allow any remaining oil to drain from the transaxle.

Inspection

1. Inspect all parts for excessive wear or damage. Replace if necessary.

Assembly

1. Reassemble all parts in the reverse order of disassembly.
2. When tightening the fasteners, refer to the table on page 20 for the required torque values.
3. Fill transaxle with oil. Refer to "Fluid Change Procedures," page 11, steps 3 and 4 for filter change instructions.

NOTE: As a general rule, use the low end of the torque specification on fasteners when reassembling the unit.

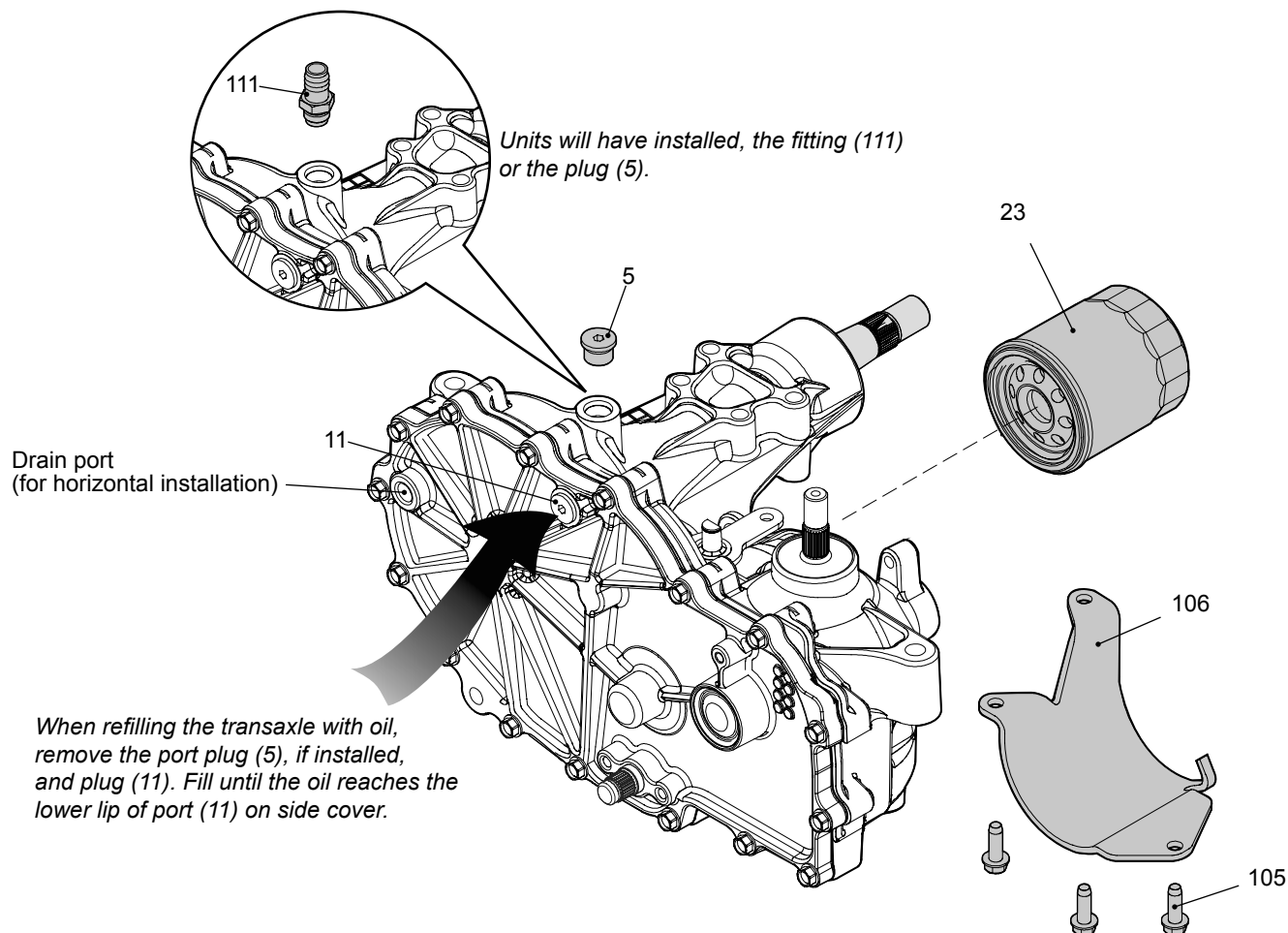


Figure 4, Filter and Guard

FLUID CHANGE PROCEDURE

This transaxle is designed with an external filter for ease of maintenance. To ensure constant fluid quality levels and longer life, an oil filter change interval of every 200 hours is recommended.

The following procedure can be performed with the transaxles installed in the vehicle, and the vehicle on level ground. Apply the bypass valve for each transaxle and lock the vehicle parking brake.

1. Remove the three 1/4" filter guard screws and filter guard. Clean any loose debris from around the perimeter of the filter. See figures 4 and 5.
2. Place an oil drain pan (12" or more diameter and 8 qt. capacity is optimal) beneath the oil filter. Remove the oil filter from the transaxle.
3. After the oil has drained, wipe the filter base surface off and apply a film of new oil to the gasket of the new replacement filter (Hydro-Gear part number 52114).
4. Install the new filter by hand, turn 3/4 to one full turn after the filter gasket contacts the filter base surface.
5. Re-install the filter guard with three 1/4" screws. Torque screws to 65 in. lbs. (7.3 Nm) each.
6. Repeat steps 1-5 on the opposite side

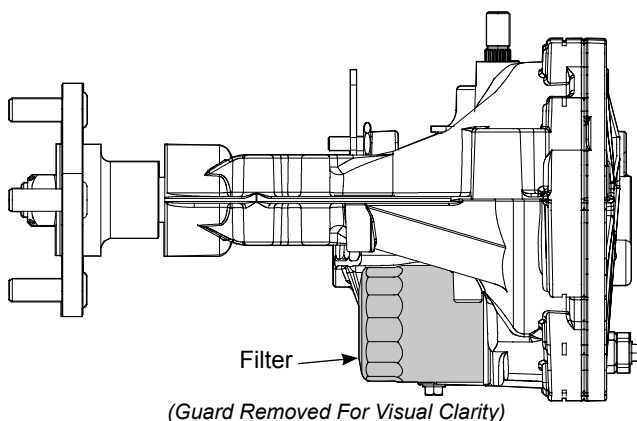


Figure 5, Filter Location

transaxle drive.

7. Drain old oil filters of all free flowing oil prior to disposal. Place used oil in appropriate containers and deliver to an approved recycling collection facility.
8. Remove the top port plug (figure 5) from the left side and right side transaxles prior to filling with oil. This will allow the transaxles to vent during oil fill.
9. Remove the cap from the transaxle's expansion tank located on the vehicle frame.
10. Fill with 20W50 motor oil until oil just appears at the bottom of each transaxle's top port (approximately 2 qts. per transaxle, 4 qts. total). Install the top port plug into each transaxle as the oil level reaches this port.
11. Install and torque the top port plugs to 180 in. lbs. (20.3 Nm).
12. Continue to fill the transaxles through the expansion tank until the "Full Cold" line is reached on the Hydro-Gear expansion tank (refer to vehicle owner's manual for specific volumes).
13. Re-install the expansion tank cap by hand. Be careful to not overtighten.
14. Proceed to the purge procedure.

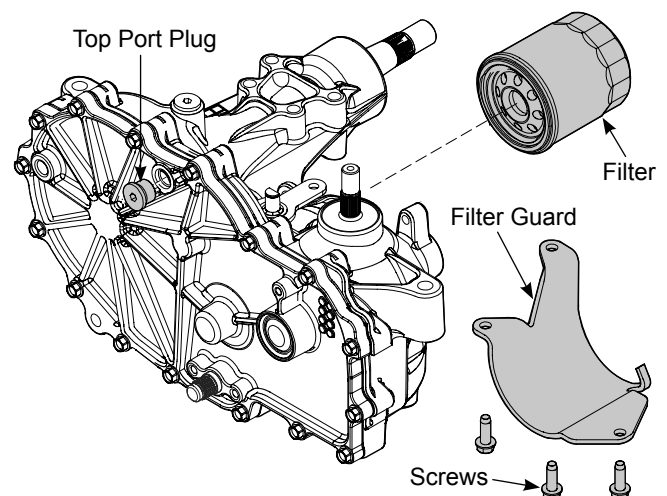


Figure 6, Filter And Filter Guard